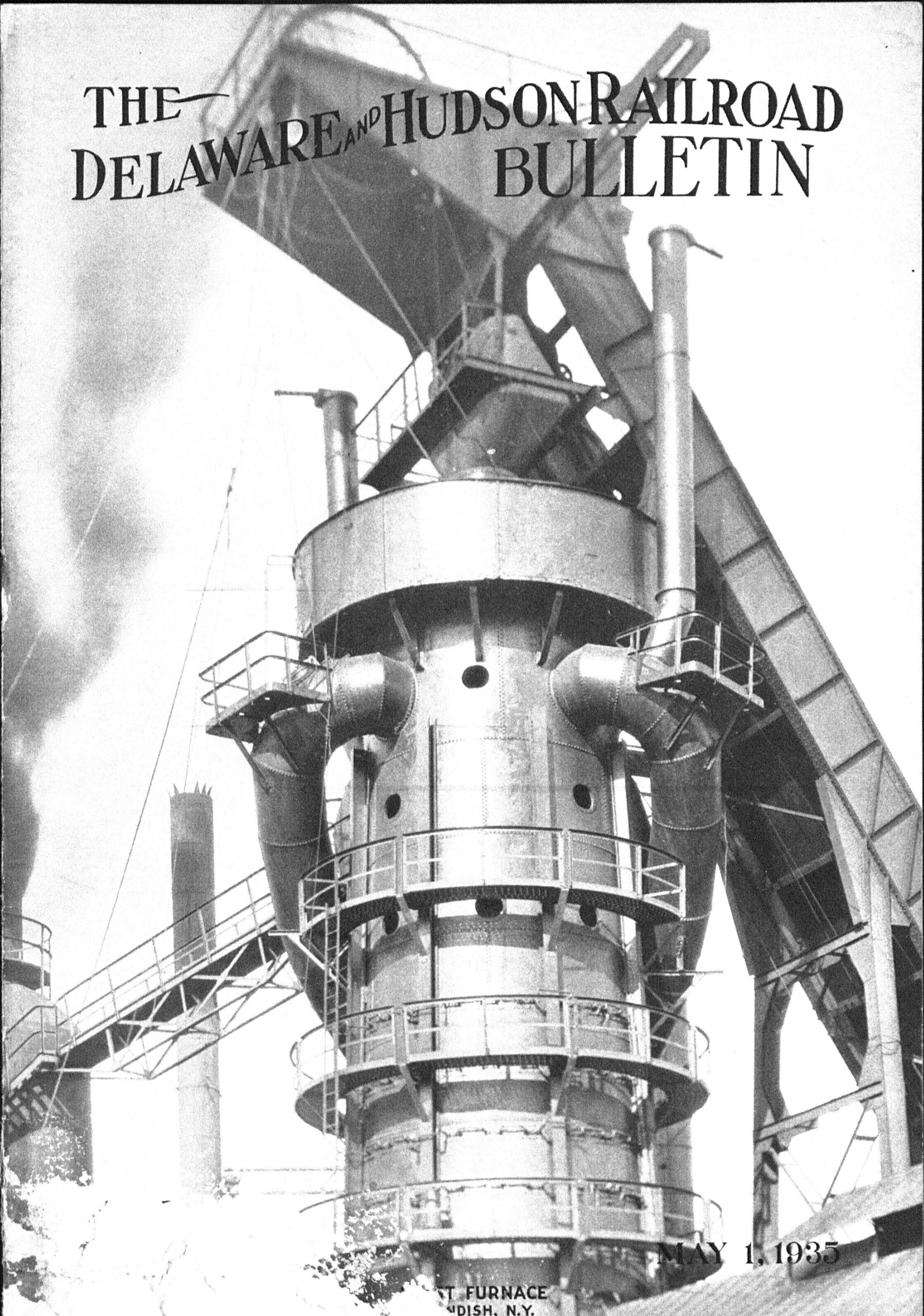
THE DELAWARE AND HUDSON RAILROAD BULLETIN



MAY 1, 1935

ST FURNACE
NDISH, N.Y.

Trifles

MICHAEL Angelo was one day explaining to a visitor at his studio how he had been working on a statue since a previous visit.

"I have retouched this part, polished that, softened this feature, brought out that muscle, given some expression to the lips, and more energy to that limb."

"But these are trifles," remarked the visitor.

"It may be so," said the master, "but recollect that trifles make perfection, and perfection is no trifle."

"the D&H"
The
DELAWARE AND HUDSON RAILROAD
CORPORATION
BULLETIN
"the D&H"

Repairs Wooden-geared Clocks

Unique Hobby of Carbondaler Who Pulled Many a Mallet Throttle

REPAIRING clocks, some so old and battered that their owners have discarded them, has long been the hobby of SAMUEL E. BANKER, retired veteran of 46 years as a Delaware and Hudson fireman and engineman. Just when he first took a clock apart to see if he could make it run again, MR. BANKER does not know, although it was about 30 years ago. Success, after many long hours of tinkering, was so satisfying that he kept it up, meanwhile building up an enviable collection of his own. His work bench motto, he remarks good-naturedly, is: "I'll fix it, or fix it so it can't be fixed." To date the first three words would have been sufficient.

SAMUEL E. BANKER

The prize piece in his private collection is a 120-year old 30-hour clock, the wheels of which are all made of wood, built by Silas Hoadley, of Plymouth, Conn., in 1814. Two others, with wooden movements, are well over 100 years old, for the clockmakers changed from wood to stamped brass gears in about 1830, so that any wooden-cogged clock is now over 100 years of age, according to MR. BANKER. A fourth, a mantle clock, [illegible] French movement in a black marble case, [illegible] of white marble. Above his work bench is a calendar clock showing the correct month, date, day of the week, hour, and minute.

He is now repairing a 125-year-old veteran wall clock, built in 1810 with a frame of quartered oak, applewood wheels and ironwood pinion gears, with the added unusual feature that it will run for eight days on one winding although most of these old clocks ran for only 30 hours without attention. As parts for such ancient timepieces are no longer available, MR. BANKER must make them himself. It took several days to cut, file and shape the hand assembly including a new clutch, and the sleeves through which the hand shafts emerge from the works to the face.

MR. BANKER makes no attempt to capitalize on his hobby; if a clock owner is willing to entrust an antiquated mechanism to his care, he feels amply repaid if he is able to make it run again.

His present home, at 22 Terrace Street, Carbondale, is in marked contrast to the log cabin in what was then a wilderness along the upper reaches of the Delaware River, in Wayne County, Pa., to which his family moved when he was three years old. His father bought 233 acres of timberland and a log house six miles from Deposit in 1866, sold MR. BANKER'S birthplace near Montrose, Pa., and, during the next six years, had a large portion of the lumber cut and rafted down the river to Trenton to be sold.

When the Banker family reached this property, they found a one-room log house, devoid of any present-day modern conveniences, although the father soon built a board addition which included a kitchen downstairs and a bedroom "for the boys" upstairs. The only heat in the house came from a huge fireplace in the log section, built to accommodate four-foot logs. At bedtime hot coals from the fireplace were scooped into a long-handled brass warming pan, which was put under the covers to "take the frost out of the bed." The light from the fireplace provided most of the illumination during the evening, although tallow candles were available when required.

When twelve years old SAMUEL left school to work on farms during the summer months, for his board and $5 per month, while in the winter he cut lumber, hewed it into railroad ties, and worked in saw mills, switching from one to the other as opportunities presented themselves. At the age of 24, he decided to try his hand at railroading at Carbondale.

Master Mechanic Charles Rettew, after looking over this 6-foot, 200-pound applicant, offered him a trial as a locomotive fireman. MR. BANKER accepted and went to work in October 1887, making his first trip on old engine No. 71, a culm burner. The wage scale, placed in effect that year, gave a fireman $2 for a day's work to consist of one trip from Carbondale to Wilkes-Barre and return, and a second run to Green Ridge and back. A round trip to Nineveh, figured at 114 miles, paid $2.28. Enginemen, during their first year at the throttle, received $3 for 100 miles or twelve hours work, while those with more than a year's service earned $3.50. The tonnage given the "Mogul" (2-6-0 type) engines was figured on a 25-cars- per-train basis, regardless of the weight carried by the cars. Northbound trains were given a pusher to Ararat; from there on the engineman had to get over the road as best he could. After reaching Nineveh he was marked south as soon as 25 cars were available to make up his train. Frequently there were cars of ore waiting for movement south, each of which was counted as two empties.

Cutting off the Pushers

Two huge Mallet locomotives are used to help each 6000-ton train from Carbondale to Ararat

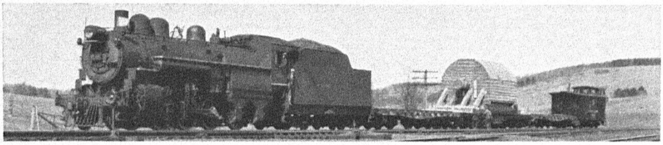
In 1893 MR. BANKER made his first trip as an engineman, although he had no regular assignment until 1901. For eight years he fired the local freight from Nineveh to Carbondale and return on weekdays, making one trip on Sundays with a passenger train.

In 1902 he was assigned to run a freight train leaving Carbondale at 1:30 P. M., returning immediately with No. 69, which carried the package freight from Wilkes-Barre to Carbondale and points north. The following year this run was extended from Wilkes-Barre to Oneonta, becoming one of our first manifest freight trains operated over both the Pennsylvania and Susquehanna Divisions. Leaving Wilkes-Barre at 6 P. M. with engine 291 (similar to our present 700-class power) he was "given the road" reaching Oneonta in what was then considered remarkably short time, 9 to 11 hours. Today Train WM-3 is scheduled to cover the same distance, with several times the tonnage, in 8 hours.

When our first five Mallet locomotives were built at Schenectady, MR. BANKER was sent to Oneonta to bring them to Carbondale, running each until the next was ready. So impressed was he with the power and efficiency of these 230-ton giants that, after a period of breaking in other engines when they left the Carbondale back shop and a term on the work train, he bid in a job running Mallets in pusher service between Carbondale and Ararat, the position he held at the time of his retirement October 1, 1933.

Would he be a railroader if he could choose again?

"Certainly! The railroad didn't ask me to work for it; I sought the job and was free to quit any time the work didn't satisfy me. Sure I would be a railroader again. Listen! Hear her?" A locomotive whistle roared and echoed through the valley. "Fast freight going north—I'd like to be on the Mallet pushing her. Say, where were we? Oh, yes, let me show you the wooden wheel old clock."

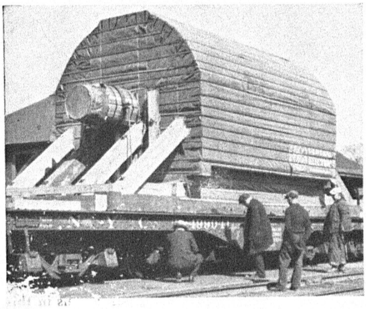


Delaware and Hudson Special Moves

World's Heaviest Shipment

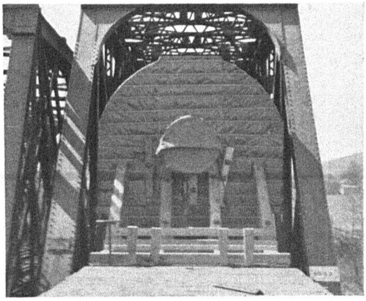
WHAT is believed to be the heaviest shipment ever transported on a single railroad car moved over the Delaware and Hudson from the General Electric Company's Schenectady Works to Buttonwood (Wilkes-Barre), Pa., Friday, March 22. It consisted of a generator shaft, rotor and poles, for a 25,000-kilowatt frequency converter set weighing 367,000 pounds, en route to Benning, D. C., where it will deliver 25-cycle, single-phase current to the Pennsylvania Railroad for the operation of trains on the southern end of the recently completed electrification project.

Months before the converter set was completed, Operating Department men were working on the problem of transporting it to its destination. In order to handle the shipment a car having four four-wheel trucks, and a load limit of 397,900 pounds was used. The car alone weighs 104,100 pounds, which, together with the load and blocking made a total weight on the rails of 473,900 pounds, slightly more than the heaviest Delaware and Hudson locomotive.



[illegible] of 473,900 pounds

It was necessary to check height and width clearances on the 208 miles of line between Schenectady and Buttonwood and plan the movement accordingly. Because of the load's tremendous weight and size—it stood 16 feet 10 inches above the rails and was 12 feet 5½ inches wide, two feet greater than our published clearance—it was handled in a special train.



Clearances were checked

The machine was loaded March 21, and the train, consisting of Locomotive 926, the load, with one spacer flat car at each end, and a caboose, left Schenectady at 7:50 A. M. the following day.

At several points en route special precautions had to be taken. At Delanson it was necessary to elevate the outer rail of the southward main track to give sufficient clearance between the load and a standpipe. The train was run over the northward main from Cobleskill station to KF Tower to clear cars at the freight house.

Over most of the distance between milepost A-88, just north of Otego, and milepost A-101, north of Sidney, the load would not clear trains on the northward main track. Milk train No. 315 was therefore held in a siding at Wells Bridge until the special train had passed, and no other trains were met until it had reached Bainbridge where the clearance was sufficient to permit the passage of Fast Freight WM-3. Arriving at SW Cabin, junction of the Susquehanna and Pennsylvania Divisions at 1:50 P. M., the special train was overtaken and passed by Fast Freight RW-2, continuing its southward trip at 2 P. M.

Extreme caution had to be exercised in crossing the gauntlet bridge at Center Village where there was approximately one inch clearance on the west side. From that point on the train made steady progress, arriving at Buttonwood at 8:30 P. M., and the shipment was delivered to the Pennsylvania Railroad shortly thereafter. Although it had been thought that some switch stands and other minor obstructions might have to be moved to permit passage of the load, aside from shimming the track at Delanson no such action was necessary.

The Flagman Was Out

Standing, Right to left; Thomas Cannon, Engineman, J. P. Hastings, Conductor, E. B. Monroe, Fireman, and J. F. McGillian, Trainman. Seated, Fred Dykeman, General Electric Co.

Newspaper and word-of-mouth announcements of the special movement brought hundreds of persons to the right of way to see the train pass. At East Worcester, where a water stop was made, the principal of the local school took all the pupils to the station to inspect the load in the few minutes available, believing that it would add to the pupils' interest in physics and commercial geography. Another group of school children was assembled at the Bainbridge depot, several of whom plied the crew and the General Electric Company's representative with questions about the handling of the shipment, as well as the use to which it will be put. A noonday crowd of several hundred persons was on hand at the Oneonta station where the train stopped for water and inspection.

From Buttonwood the shipment moved over the Pennsylvania to Hagerstown, Md., thence via the Western Maryland to Fulton Junction, this detour being necessary because of tunnel clearance limits in Baltimore, and finally back to the Pennsylvania for the balance of the trip to Benning, where it arrived safely on the following Wednesday.

The rest of the converter set, comprising four additional carloads of electrical equipment, was shipped over the Delaware and Hudson shortly after the record-breaking load was handled.

How It Is Done

ORDINARILY we let others criticize the government, but the following letter from Professor James E. Boyle, of Cornell University, to the editor of *Commerce & Finance* is too informative to omit.

Professor Boyle writes: "In these days when all sections of the country are turning to the Federal Treasury for 'relief'—farm relief, drought relief, unemployment relief, depression relief, and so on, it may be well to remember that when the Federal Government begins to spend money, it spends it both lavishly and wastefully.

"For one simple illustration of this very serious fact, go back to some of the expenditures made for the equine branches of the army during the World War.

"The War Department never had at any one time over 300,000 horses and mules.

"The Government bought 2,850,853 halters.

"The Government bought 1,637,199 horse brushes.

"The Government bought 2,033,304 nose bags.

"The Government bought 1,148,364 horse covers.

"The Government bought 8,781,516 horseshoes.

"The Government had, in all, only 86,418 cavalry horses. For these:

"The Government bought 945,000 saddles.

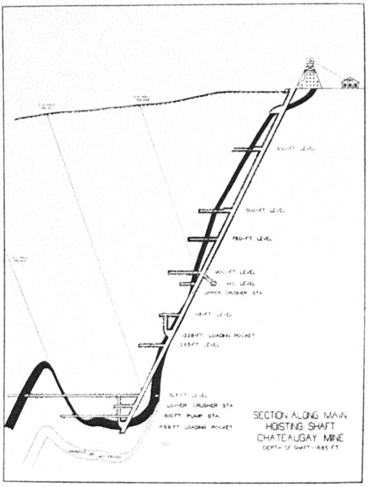
"The Government bought 585,615 saddle bags.

"For the ordnance officers the Government bought 712,510 complete sets of spur straps, or about 36 sets for each officer.

"The money spent by the Federal Government comes directly out of the taxpayer's pocket. It is not a free gift from hea[illegible] seekers relief seem to think. T[illegible] relief from our tax bu[illegible]

Chateaugay Iron

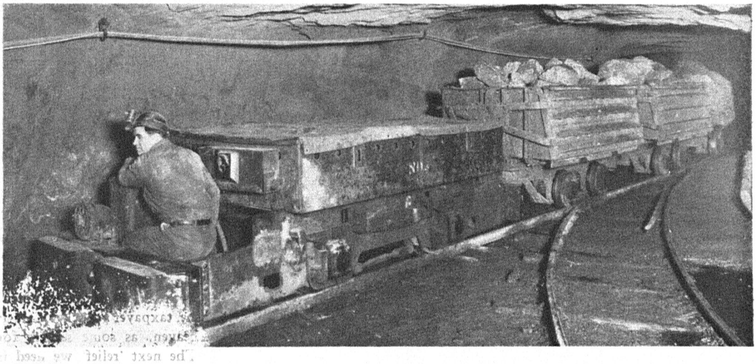
How it is mined, concentrated, sintered and cast into pigs from which the finest of the world's steels are made, is told in this, the second and final installment.



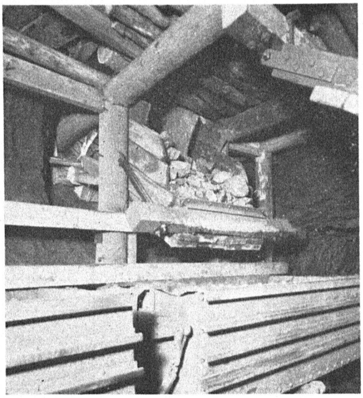
THE main entrance to the Chateaugay iron mine is an 8 by 24-foot shaft, inclined at an angle of 63 degrees from the horizontal, sunk to a depth of 1,685 feet, the ore vein being tapped from the shaft at intervals varying from 150 to 300 feet.

Levels or drifts 8 feet high and 12 wide are driven east and west of the shaft into the ore vein. The drifts are on a rising grade of ¾ of 1 per cent in order to facilitate drainage and to favor the transportation of the ore to the shaft, the loaded cars traveling on the down grade. As the drifts advance, a permanent 36-inch gauge track is laid, with 40-pound steel rail on wooden ties, spaced 30 inches apart, ballasted with iron ore or rock, whichever the drift happens to pass through.

From the drift, "raises" 5 by 8 feet are driven upward into the ore at intervals of 30 feet for the width of the ore vein. From these raises, stopes are started for mining the ore for production. These are large chambers from each end of which a man-way raise is driven through to the level above to provide for ventilation, pipe- and ladderways, and to afford entrance into the stopes since the raises, through which they were originally reached, will be filled with ore as it is mined. Chutes, made from 3-inch hardwood planking and heavy timbers, are installed in the bottom of the raises.



[illegible] cars travel down grade behind electric locomotives



Chute for loading ore

and through these the ore falls into the 6-ton, roller-bearing-equipped, steel tram cars which electric locomotives haul to the main shaftway.

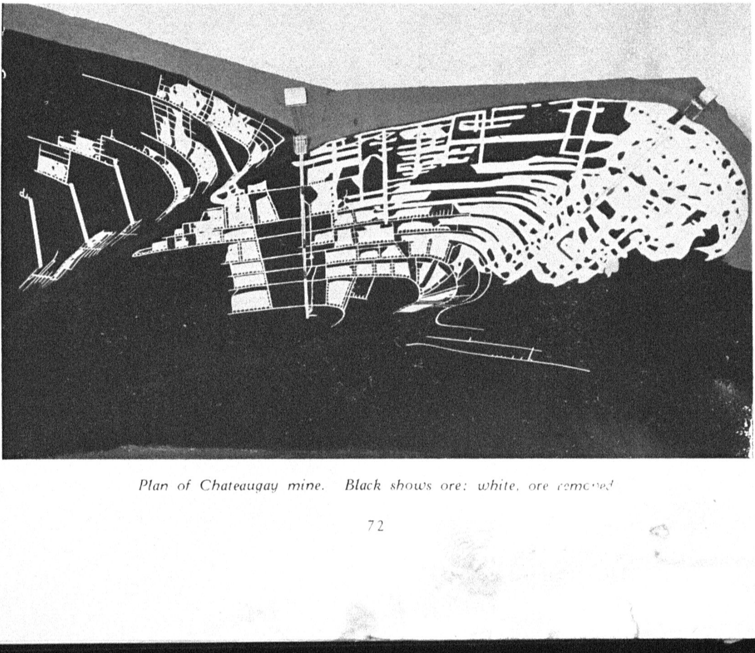
There are three different methods of stoping: shrinkage, underhand and scraper.

The shrinkage method consists of drilling up into the ore, blasting it down, and drawing only enough ore out of the stope each day to leave space for the men to work. This makes a daily cycle which is continued until the stope is advanced to within 30 feet of the level above, during which time about 40 per cent of the ore broken is drawn out daily. Thus, when the stope is completed, it is full of broken ore which can be drawn out at will.

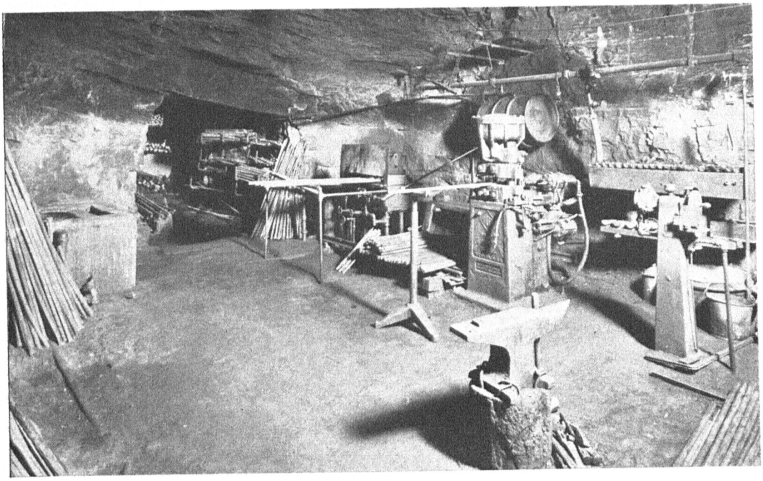
The underhand method consists of drilling down into the ore and blasting it from sub-levels which have been driven across the stope at 50-foot intervals, connecting both man-way raises. As the ore is broken, it falls to the loading chutes below, and can all be drawn out immediately.

Where the vein is not steep enough for the ore to run by gravity, the scraper method is used. At convenient locations, a small, double drum, electric hoist is installed, to the ⅝-inch cables of which is attached a steel scraper. After the ore has been blasted loose, it is scraped along the floor to small ore pockets from which it falls by gravity into the tram cars.

Drilling of the ore is done by high-powered, compressed-air drilling machines of various types and sizes, depending on the character of the work to be performed. Due to the extreme hardness and abrasive character of the ore and rock, the drill steel used must be of the highest grade obtainable,



Plan of Chateaugay mine. Black shows ore; white, ore removed



Underground drill-sharpening shop

and it is, therefore, made from Chateaugay Iron. Drill sharpening shops are located on each level to care for the thousands of pieces dulled daily.

Because of the hardness and density of the ore and rock, it is necessary to use high explosives in all cases for blasting.

When the ore arrives at the main hoisting shaft, it is dumped from the tram cars into the ore pass, located on each level, at the bottom of which is located a large jaw crusher which reduces the lumps to 8 inches or less in diameter. From the crusher, the ore drops into the loading bins from which 8-ton skip hoists, operating at the rate of 1,800 feet per minute, raise and automatically dump it into the bins above the headframe at the top of the shaft.

One of the unique features of the mine is its ventilating system. The openings from the old workings at the surface at the west end of the mine are considerably higher than those at the east end. During the long, cold winters hundreds of thousands of tons of ice accumulate in these unused workings, cooling the air which, consequently, seeks the lower levels, forcing the smoke and gases ahead of it through the openings to the surface at the further end of the mine. Even during the summer months enough of the ice remains to insure ample ventilation of the mine at all times.

Water from all sections of the mine flows by gravity to points near the main shaft, from which it is forced to the surface by electrically-driven pumps at the rate of 500 gallons per minute. Fortunately, the water is very pure and not destructive to the pumping equipment as is the case in the anthracite mines.

We now have the ore, 8 inches and less in size,

(Concluded on page 75)

Stoping ore

The
Delaware and Hudson Railroad
CORPORATION
BULLETIN

Office of Publication:
DELAWARE AND HUDSON BUILDING,
ALBANY, N. Y.

PUBLISHED MONTHLY by The Delaware and Hudson Railroad Corporation, for the information of the men who operate the railroad, in the belief that mutual understanding of the problems we all have to meet will help us to solve them for our mutual welfare.

All communications should be addressed to the Supervisor of Publications, Delaware and Hudson Building, Albany, N. Y.

Vol. 15 May 1, 1935 **No. 5**

No Job For Trucks

WHILE not exactly a routine matter, the handling of huge, heavy shipments of electrical machinery for the General Electric Company is becoming one of the Delaware and Hudson's specialties. For the third time in less than ten years the railroad has been called upon to transport rotors for electrical machines which were of such size and weight that our railroad offered the only means of shipment. In all, five machines have been shipped in this way, special train service being provided in each instance and arrangements being made to clear tracks adjoining that actually occupied by the special because of the great width of the machinery.

On May 16, 1926, and again on November 11, 1928, two such machines, weighing 226,000 pounds apiece were moved from Schenectady to Albany via Delanson, being then loaded on lighters for movement to New York City. The recent handling of another rotor weighing 367,000 pounds for all-rail shipment to the national capital is described elsewhere in this issue.

These instances are cited here only that they may give pause to those visionary mortals who prophesy the early demise of the railroads as the result of having been supplanted by highway and air transport. It will be a long, long time before we have either planes or trucks capable of carrying 180 tons in one piece, and if such a truck were constructed, few if any highway bridges would be strong enough to support it.

Freak Blazes

FREAK blazes have occurred from such a wide variety of sources that it is something of a task to say what will not cause a fire, according to *Popular Science Monthly*. Sunlight will; so will dust. Steam-pipes have been rare but actual offenders. Non-electric sparks from buzzing machinery—emery-wheel sparks falling into inflammable material, for instance—and electric sparks from static electricity have produced a variety of queer fires equaled only by those that chemicals start. Liquified glass and molten metal in factories have contributed their share. Bursting cylinders of compressed, inflammable gas have started fires.

Perhaps the oddest of all involved a tombstone, a box of matches, and a freight car. For shipping, men had placed the granite block upright in a car. As the car passed over a switch the stone swayed and toppled. Fate decreed that it should alight upon a carton of matches. Soon a merry blaze enveloped the car.

Steam pipes too near wood work will in time so dry the wood that it will start a blaze. An air bubble in a window glass will act as a lens and start a fire. In another case, beads of perspiration fell on some sodium peroxide that was being handled in a bleaching establishment by a workman and a fire started. Here is another cause of fire that will interest automobile owners. When the Massachusetts state police investigated automobile fires at filling stations they found that the mere passage of gasoline through a filling hose generates enough static electricity to ignite the car's tank, under favorable circumstances.

Random Shots

I SHOT an arrow into the air; it fell in the distance I knew not where, till a neighbor said that it killed his calf, and I had to pay him 6 and ½.

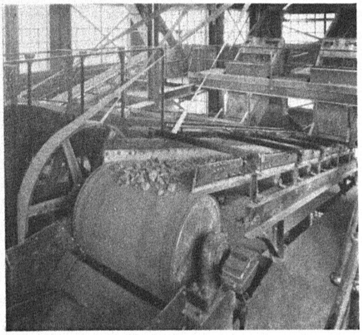
I bought some poison to slay some rats, and a neighbor swore it killed his cats. And, rather than argue across the fence, I paid him 4 dollars and 50 cents.

One night I set sailing a toy balloon, and hoped it would soar till it reached the moon. But the candle fell on a farmer's straw, and he said I must settle or go to law.

And that is the way with the random shot—it never hits the proper spot. And the joke you spring, that you think so smart, may [illegible] in some fellow's heart. [illegible]

Chateaugay Iron

(*Continued from page 73*)



Pulley type, magnetic separator

above the ground. It contains 28 per cent pure iron, from which must next be separated all the rock and other foreign matter. So we come to the milling and concentrating of the ore.

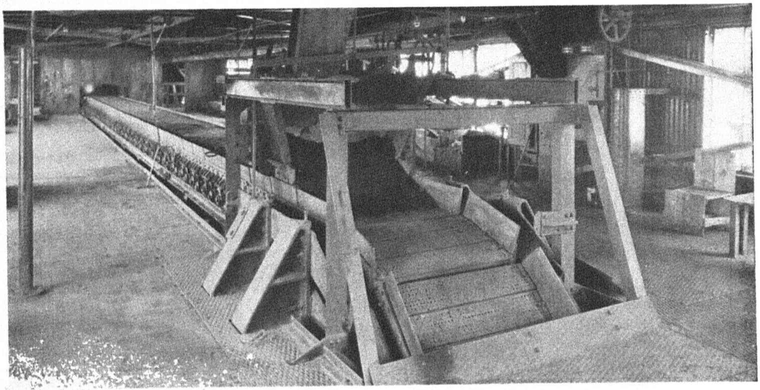
First, there are more crushers, then the ore passes over vibrating screens with inch-square openings. What passes over the screens is carried by belt conveyors to electro-magnetic separators adjusted to discard all material containing less than 6 per cent iron. This discard, known as coarse tailings, is sent to the tailings pile. The iron-bearing material retained by the separators is passed between chrome-steel rolls which reduce it to 1½-inch and smaller.

More crushing, drying to remove all moisture, more magnetic separators, and the result is a concentrated ore containing 70 per cent iron which goes to the sintering plant, and tailings, containing not more than 2 per cent iron, which are carefully separated as to size and stored in a concrete tunnel from which a belt conveyor takes them to railroad cars for shipment to market.

These by-products of the manufacture of Chateaugay Iron, ore tailings of rock from which the bulk of the iron has been removed during the process of concentrating the ore, are of great importance. In various sizes they are used for concrete mixing, both as sand and stone, the result having been found by test to have 17 to 24 per cent more strength than concrete made with Ottawa sand, the general standard of comparison of authorities on concrete. In addition to its great strength, this concrete shows unusual density, durability and surfaces able to withstand severe abrasive or weathering actions. Its strength renders such a material particularly adapted to thin section work such as floor slabs in bridges and buildings.

In addition to concrete work, the ore tailings are used for plastering and mortar, composition roofing, macadam, track ballast, locomotive sand, filtering, sand-blasting, and as a slag-forming material in the blast furnace.

In order to improve the physical character of the concentrated ore, it is put through a process called



Sintering machine, Lyon, Mountain, N. Y.

sintering. First the ore is mixed with about 5½ per cent, by weight, of granulated anthracite, very high in carbon and low in ash, known as Anthrafine, produced by the Hudson Coal Company. During the mixing a small quantity of water is added as a temporary binder. This mixture of ore and fuel is then spread evenly on the pallets of the sintering machine to a thickness of about 6 inches.

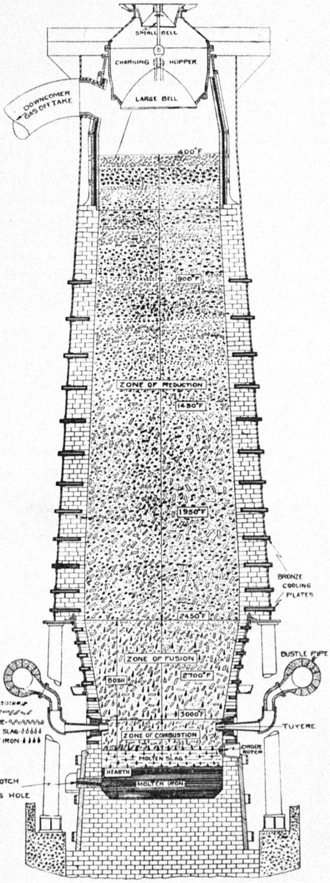


Diagram of Blast Furnace

The sintering machine of the Chateaugay plant is some 6 feet wide by 69 long and consists of a series of perforated grates, or pallets, mounted on wheels which travel on a continuous track. As the ore-covered pallets pass under an oil-heated ignition furnace, combustion takes place, aided by a forced down-draft. The speed of the machine is regulated so that, by the time the material reaches the discharge end, the fuel is entirely burned out and the process completed. Any material less than 1 inch in diameter returns on a belt conveyor to be mixed with the incoming feed to the machine, the larger lumps going to railroad cars for shipment.

To reduce the sintered ore to the pig iron of commerce, it is taken from the sintering plant at Lyon Mountain to the blast furnace at Standish. The furnace proper is a steel stack, about 80 feet high, lined with high temperature refractory brick. It consists of three distinct parts, each of which has a different function. The shaft, or upper part of the furnace, has an inside diameter of 13 feet at the top, gradually increasing to 17 feet where it connects to the bosh, about two-thirds of the way down. The bosh then gradually decreases again to a diameter of 13 feet at the point where it connects with the top of the hearth, the latter being of this same diameter straight down to the bottom.

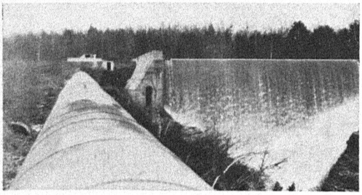
In order to protect and to prolong the life of the fire-brick lining of the furnace, hollow bronze cooling plates, through which water is circulated, are inserted at intervals.

The raw materials are put into the furnace in alternate layers of coke and a mixture of iron ore, limestone, and sometimes, manganese-bearing material. These layers, called charges, are four to six feet thick and continue until the furnace is filled to within a few feet of the top, this level being maintained at all times while the furnace is in operation.

A blast of air, preheated to about 1,400 degrees, is forced into the furnace through tuyeres, short, hollow, water-cooled, bronze tubes having an inside diameter of about 5 inches. There are 8 of these tuyeres, evenly spaced about the upper part of the hearth just below the bottom of the bosh.

The carbon of the burning coke at the bottom of the furnace unites with the oxygen of the incoming blast of air to form carbon monoxide. This gas has a great affinity for oxygen. Thus, as it passes upward through the raw materials in the shaft of the furnace, it unites with the oxygen in the iron ore, reducing the ore to a metallic state, and passes out through the top of the furnace as carbon dioxide.

By the time the materials have settled [illegible] the level of the [illegible] the iron [illegible]

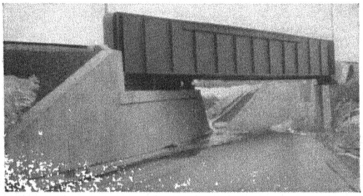


Dam built with Ore Tailings

reduced to a metallic state, and the carbon dioxide has been driven out of the limestone, changing it to lime. The iron and slag-forming materials begin to melt at this point, and trickle in streams down through the coke bed into the hearth. The molten iron, being heavier, sinks to the bottom, the lighter slag remaining on top of it. Thus it is possible to draw off the slag through what is called the "cinder notch." This flushing, as it is called, takes place at regular intervals. The slag drawn from the furnace goes into large, standard gauge, ladle cars which carry it direct to the slag dump.

At intervals of from four to six hours the iron is drawn from the furnace, the quantity varying from 35 to 60 tons, depending upon the rate of operation, and flows into a 70-ton capacity ladle, lined with refractory brick. To stop the flow of the molten iron from the furnace, a steam operated cylinder, known as a "mud-gun" forces a plug of fire clay into the tapping hole. The air blast is then turned on again and the process continues.

From the ladle, the molten iron is poured into the pig-casting machine, a continuous line of cast iron molds traveling up an inclined track. Sprayed with steam and hot water, the iron cools sufficiently to solidify by the time it reaches the end of the machine. The pigs, blocks weighing about 65 pounds, are discharged directly into railroad cars which carry them either to the storage yard or to market.



Chateaugay Ore Tailings used in concrete walls and road and track ballast

Because of its freedom from phosphorus, together with other characteristics of a technical nature which cannot be described in detail here, Chateaugay Iron is in great demand for castings which must resist the action of heat or acids, or withstand pressure without permitting leakage through the pores of the metal as is necessary in the ammonia compressors of large refrigerating machines, for example.

Its toughness and resistance to fatigue have led to the use of Chateaugay pig iron in the manufacture of wire and cables, drill steel, steel forgings, die blocks, rolls, cylinders, gears, springs, cams, shuttle races, piano plates, piston rings, crankshafts, chucks, steel and rolling mill equipment, and many other types of machinery. It is especially suitable for castings of intricate design where heavy and light sections meet and increased strength and hard wearing surfaces are desired.

No finer testimonial to the strength and endurance of Chateaugay Iron and the steel made from it can, however, be found than the great structures, ranging all the way from the Brooklyn and Washington bridges in the East to the Golden Gate and San Francisco bridges on the Pacific Coast, the strength of whose great cables comes from the depths of the Chateaugay mine.

Cut It Down

IF you have a thing to say,
Cut it down!
Something you must write today,
Cut it down!
Let your words be short and few,
Aim to make them clear and true.
Monosyllables will do—
Cut it down!

If you've a speech to make tonight,
Cut it down!
Wish to have it go all right?
Cut it down!
Do not be a talking bore.
Better far to listen more.
Don't monopolize the floor—
Cut it down!

Do you spend more than you get?
Cut it down!
Plunge into still deeper debt?
Cut it down!
Do not strive to make a show,
Settle promptly what you owe,
Pay your way or do not go—
Cut it down!

—*Grenville Kleiser.*

"Strangely Blind"

Says An Outsider, of the Public's Attitude Toward Railroads

THE other day I was walking through one of our large steel plants and could not help contrasting the number of men working today against the thousands of a few years ago.

What is the reason for so much of unemployment everywhere?

As I left the plant I walked through the yard with its idle freight cars and was stopped by a passing freight train. It was apparent from the few cars in the train and the sad appearance of the cars, that the great railroad industry in its peak season was having a bitter struggle. And no wonder! Take our own steel plants for instance. Approximately six cars of raw materials come into our mills for every car of iron and steel sheets we ship out. Yes, when the bottom drops out of business everything sinks.

In normal times railroads are the biggest buyers of industrial products. When they start buying industry picks up. New blood flows in its veins. In turn these industries supply tonnage to keep the railroads busy. Then hundreds of thousands of little spirals of increasing business begin to build new markets for wage earners and farmers alike. Soon every city, town and village feels the impulse of this new life. The shoemaker sells more shoes, the clothier sells more clothes, and the farmer sells more produce. "Fine," you say, "let's get going. What's the matter with the railroads, anyway?" And there's the rub.

The great transportation systems of the country are not only forced to meet the problems common to every industry during this depression, but they have other problems far more difficult to meet. The railroads have become the football of every one who has a political or economic axe to grind. We have sat quietly by while our legislators have passed laws that force the railroads on one hand to increase wages and on the other hand to reduce freight rates, then we add costly pension bills to their operating costs. All this in addition to the tremendous tax burden of the times. Strangely blind to our own interest, we have allowed this sapping of the vitality of our railroads to continue unchecked for years.

I am afraid we sometimes forget how large a part the railroads play in our modern civilization. Is it, that you and I sit by and say to ourselves, "Well, what difference does it make to me?" A business man recently expressed that very thought to me. He said he was not a stockholder in the railroads nor an investor in their bonds— that it didn't make a bit of difference to him personally. But *was* he right?

Almost every man, woman and child in the country is directly or indirectly a stockholder in the railroads of this country. You may say that you are not, that you have no railroad stock, but you probably have *life insurance*, or the head of your family has life insurance, and if so, you are vitally interested in the welfare of the railroads. The life insurance companies of America are the largest holders of railroad stocks and bonds. If the railroads of America were to be wrecked, there is hardly a life insurance company that could withstand the shock.

Yes, railroads mean a great deal to all of us. It is necessary that they have revenue to meet their expenses or they can not go on. So, let's help get them back on their feet, or should I say rails— the sooner the better.

The next time you hear some one taking the railroads for a ride, just remind him that business, to a very large extent, is waiting for their sound recovery. There's a hundred thousand unemployed men in the steel and associated industries alone waiting for the railroads to come back.—*Armco Ironmaster.*

For Short

WHEN the first 'Tanks' had been successfully manufactured in England, during the war, the inventors were asked to find a name for these machines.

After rejecting such words as 'container,' 'cisterns,' etc., the monosyllable 'tank' was decided upon.

The equivalent German word was 'Schutzengrabenvernichtungpauzerkraftwagen.'

Auld Lang Syne

Two Scotchmen had not encountered each other for 20 years.

"Well, well, well," said one, "this is an historic occasion. We'll have to wet it."

"Aye," agreed the other, "so we will. But ye'll forgive me for remindin' ye that I paid last time."

Clicks from the Rails

An Amazing "Stork" Call

was recently made to the childless home of M. B. Maxwell, Central of Georgia foreman. Returning home late one evening Mr. and Mrs. Maxwell heard a baby's cry coming from a bedroom. Investigation revealed a two-day-old blue-eyed girl tucked in bed, a pile of baby clothes lying close by. Someone had apparently forced open a window, left the baby and its clothes, and departed without leaving a note. Mr. and Mrs. Maxwell are going to adopt the baby.

◆

Messages and Marriages

are all part of the day's work of George Motes, Norfolk and Western telegrapher at Otway, Ohio, who is also local magistrate. Recently a young couple called at his office, not to send a message, but to ask him to marry them. Summoning witnesses, he performed the ceremony in the station and, after wishing the newlyweds well, returned to his telegraph key.

◆

Three Coal Thieves

were caught as a result of united action on the part of a Central of Georgia conductor, a telegrapher, and police. The conductor of a moving train saw three men stealing coal from a standing gondola and threw off a note at the next telegraph station. The operator drove to the siding, caught the three men, had them arrested and they were fined $10.50 apiece when tried in court.

◆

England's Crack Trains

such as the *Royal Scot, Flying Scotsman, Cornish Riviera Limited,* and the *Cheltenham Flyer* may soon consist of streamlined locomotives and cars, as a result of recent exhaustive tests. For the present, steam locomotives, which for years have been running on schedules which require speeds in excess of 70 miles an hour in places, will be used.

Notoriously Late,

English railroads are being urged to hold a "punctuality week" during which the aim will be 100 per cent "on time" operation. Perhaps to get in training for the big event, the London Midland & Scottish named March 5th Punctuality Day, bringing in on schedule 98.9 per cent of the 13,497 passenger trains operated during the 24-hour period. The Scottish or Northern Division actually made 100 per cent in the operation of express trains and 99.9 for the locals. One express broke a drawbar, was delayed 15 minutes, but made its 129-mile run in 136 minutes, including 2 stops totaling 4 minutes, to arrive a minute ahead of time.

◆

Model Railroad Bldg.

ranks high among the new "industries" developed as the result of shortened working hours in recent years. Vincent Astor's outdoor road, 1½ miles long, is probably the most elaborate system, while the indoor layout of Minton Cronkhite, Santa Monica, Cal., built at a cost of $50,000, is the most expensive indoor line. Now that the makers of toy trains are willing to supply parts to model builders, it is possible to construct a locomotive in a week at a cost of as little as $29, where it formerly took years and thousands of dollars.

◆

Bull-throwing is Bad

business for a locomotive, as was proved when one disputed the right of way with a Seaboard Air Line freight, derailing the locomotive and nine box cars. Five persons were injured, two fatally, as the engine hurtled into a ditch beside the right of way: the engineer and fireman were killed, a trainman was scalded about the face, and two train riders suffered fractured legs. Nothing is said as to the disposition of the bull. It was probably mean!

$1,000 in Prizes

will be awarded this year by the Great Western Railway (England) to the winners in a "Best Kept Station Contest." In past years many agents have developed effective floral and lawn displays, some working out clever designs with shrubs and painted stones, spelling out the station name or some travel slogan. In the larger cities, where lawn space is not available, hanging baskets and platform tubs replace garden beds.

◆

Stealing a Locomotive,

Armand Longle, an unemployed Frenchman set out from Lille, France, for Paris "to look for work." Station employes at Aulnoye, noticing the unscheduled locomotive approaching, succeeded in putting a man aboard who stopped it just before another train was due from the opposite direction on the same track. When Longle could offer no excuse other than: "I was going to Paris to look for work," he was held for mental examination.

◆

A "Rod-riding Cat"

was recently removed from the frame of one of the car trucks on Train 308 on its arrival at Oneonta. Where the apparently well-bred Angora boarded the train and how it managed to cling to its precarious position will probably never be learned. Removed by a car inspector, the cat was taken to the local police station and fed, after which it curled up and went to sleep, completely disinterested in the officials' attempts to locate its owner.

If we can speak no wondrous word
Nor sing a thrilling song;
If we must ever fail to do
The things for which men long,
One chance at least is left for us
Which may our lack redeem:
We may, by living word or song
Give those who can—a theme,

—ANON.